

Appl. No. 10/041,033  
Amdt. dated January 30, 2006  
Amendment November 30, 2005

PATENT

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1                   Claims 1-37. (Canceled)

1                   38.     (Previously Presented) A system for efficiently performing memory  
2 intensive computations, the system comprising:  
3                   a data cache located in memory of the system, wherein data stored in the data  
4 cache facilitates faster computations on the data stored in the data cache than if the data is stored  
5 in a database, wherein the data cache is coupled to a first set of data stored in a database and a  
6 second set of data stored in memory of the system, wherein the data cache is configured to  
7 perform a scan operation on at least a portion of the first set of data and a first update operation  
8 on the second set of data with changes that have occurred in the first set of data;  
9                   an engine manager coupled to the data cache and configured to instruct the data  
10 cache to perform the first update operation; and  
11                   a solver coupled to the data cache and configured to perform one or more  
12 computations on the updated second set of data stored in the data cache, the updated second set  
13 of data including the changes that have occurred in the first set of data,  
14                   wherein the engine manager is configured to determine if the first set of data has  
15 changed since the last update operation, wherein if the first set of data has changed, the engine  
16 manager is configured to perform a second update on the second set of data in the data cache  
17 with the changes to the first set of data since the last update operation,  
18                   wherein the solver is configured to re-perform the one or more computations on  
19 the updated second set of data stored in the data cache including the changes that have occurred  
20 in the first set of data since the last update operation.

1                   39.     (New) The system of claim 38, further comprising an application specific  
2 plug-in coupled to the solver and configured to direct the solver to perform the computations on  
3 the second set of data.

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1                   40.   (New) The system of claim 38, wherein the system is configured to  
2   update the second set of data with substantially no more than the changes to the first set of data.

1                   41.   (New) The system of claim 38, wherein the system is configured to  
2   update the second set of data with changes to the first set of data in a near-real-time fashion.

1                   42.   (New) The system of claim 38, wherein the system is configured to  
2   update the second set of data with substantially no more than the changes to the first set of data  
3   that meet a given condition.

1                   43.   (New) The system of claim 38, wherein the data cache coupled to a first  
2   set of data and a second set of data is coupled in a bidirectional fashion.

1                   44.   (New) The system of claim 38, wherein the first set of data comprises  
2   metadata and application data.

1                   45.   (New) The system of claim 38, wherein the solver comprises a generic  
2   algorithms module.

1                   46.   (New) The system of claim 38, wherein the computations solve problems  
2   encountered in business applications.